ABSTRACT

A method is disclosed for reconstructing complex wave attributes from limited view measurements of a scattering object. The method involves the analytic continuation of the Fourier transform of the object function into the area in which there is an absence of K-space coverage by requiring objects to be an even function. (It is assumed that physical objects are even functions, and it is this assumption that allows analytic continuation.) When the object function is not centered at the origin, the measurements are shifted to the origin prior to determining the analytic continuation and returned to their original location following analytic continuation.